

Twmbarlwm and associated environs:- historical importance.

Bronze Age to Mediaeval times

1.Background.



Fig. 1. Photo: Gill Sivertsen:-Twmbarlwm with Ynysyfro Reservoir in the foreground from Ridgeway, Newport, Gwent.

Twmbarlwm is highly visible. It is not the loftiest of the hills in this region but does have a prominence that others fail to display, a bulge. In fact the bulge should be regarded as Twmbarlwm as the hill is some 5 miles long with the far northern region [actually north, north east] being known as Mynydd Llwyd, the highest point Mynydd Twyn-glas at 1550 feet and the more general central region as Mynydd Maen. Twmbarlwm, while better known due probably to its 'pimple' or Norman motte is effectively merely the southern peak at 1370 feet.

The upland region of Twmbarlwm is a flat area that has been surrounded by a ditch. It has therefore been classified as a hill fort, almost certainly incorrectly as this shallow single ditch was never deep enough nor wide enough to form any sort of realistic defence against an enemy. Even later Norman enhancements did not turn this into an effective barrier. This ditch would originally have been the operative part of an animal enclosure meant to keep cattle within its boundaries. Bovine species are very poor at climbing out of ditches and hence a simple ditch is frequently sufficient to keep them in place. This is not dissimilar to the 'ha ha' ditch used to keep deer and other animals from grazing lawns around large country houses. The ditch was seemingly deepened a little by the Normans but even then it would not have been a very practical defensive measure.

The Norman motte is at the northern end of this flat area and intruded over the original ditch; and a new ditch section was dug at that end and around the motte as is normal practice. This ditch was deeper and wider than the original around the upland grazing area and was a typical Norman defence construction which the enclosure ditch of course was not.

Use has been made of this bulge on the hilltop, in effect the hilltop itself, since the early Bronze Age. Given findings of flint implements on the hills they were in use even before this era, although perhaps we should allow that flint was still used widely in the Bronze Age as not everyone had access to tools made from this new material.



Fig. 2. Raised area of Twmbarlwm with Norman motte remains [Google Earth]

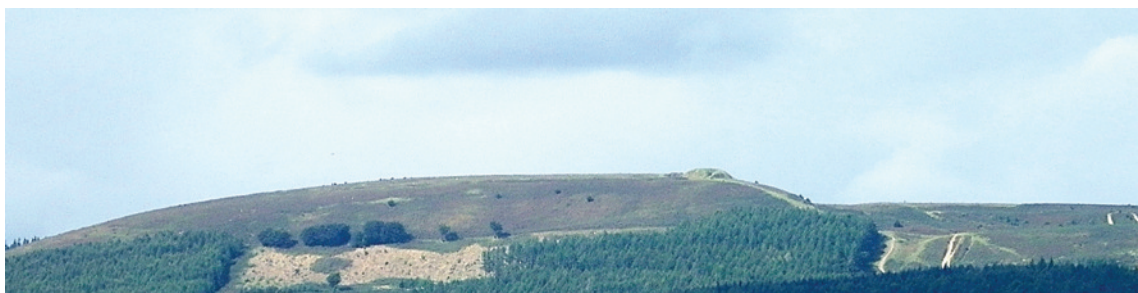


Fig. 3. Photo: Gill Sivertsen: Raised region of Twmbarlwm with Norman motte remains



Fig. 4. Photo: Gill Sivertsen:- Remnants of the Norman motte on Twmbarlwm

We shall show that this hill was used for astronomical sights and stones were erected in the lowlands below to facilitate this purpose. The hilltop was utilised to view the sunset 20 days after the vernal or spring equinox and 20 days before the autumn equinox. This was part of some highly accurate landscape setting out that was complete circa 2500BC with the date derived from the positions of the observed elements of the heavens, in this case the Pleiades.

This hilltop nonetheless has further connections to Bronze Age structures. Here the reference is to Gray Hill to the east of Newport and likewise Gray Hill has some additional apparent connections to Trellech some eight miles to the North.

2. Concepts

Long before mining took place on the hillsides of Mynydd Maen, the bulge of the end of the range, Twmbarlwm, was utilised to fix times of year. It has very distinct and far reaching calendrical associations. The sighting effects here are over quite a distance, nearly 13 miles. What is seen is an association with the Pleiades in 2500BC...and with Gray Hill north of Magor in Wentwood, the steep hill overlooking the eastern side of Wentwood reservoir. While the Pleiades were observed by numerous cultures in the northern hemisphere, what we see on the ground here in South Gwent appears to be unique...

During the Roman period over 2600 years later the then meaningless alignment to Twmbarlwm was again utilised by the Roman engineers who set out Venta Silurum, the Civitas built for the Silures, the local tribe of the area. We call this small town Caerwent.

Once more, between 600-700 years after the Romans left these shores, the Normans utilised the mound at the end of the hill range. In the intervening period between Bronze Age and that of the Normans, a small bank and ditch had been added to the raised area of Twmbarlwm. It seems that the Norman nobility took advantage

of this and utilised it as the contained area of a bailey that was a part of the motte and bailey castle atop the hill...the motte being the 'Twmp' or 'Pimple'. There was now a further sighting spot on the hill, the pimple...and this motte was indeed utilised in this manner...a visible assistant in the setting out of further mottes.

Hence as is seen from these very brief notes this hill has been more than a little influential over the millennia with the carbuncle for which it is famed, the 1000 year old 'Pimple' or 'Twmp', the Norman 'motte', visible from as far as Somerset, being but the most recent of sighting points and as we shall reveal, this once more has far reaching consequences.

Let us next, however, transport ourselves back to the era circa 2500BC and reveal what can be discovered by anyone...without digging into the ground. All that is required at this stage to prove the argument to oneself is an OS map 1:25000 scale [most suitable combination of coverage and scale] and an astronomy computer program. Computerised mapping is a wonderful advantage but not essential. In fact much can be accomplished with the free Google Earth although one cannot backdate astronomical events with this program and the OS grid system, not available on Google Earth, is more favourable for this type of work than Latitude and Longitude as positions so denoted are transferable to a CAD program. The investigations seen here have been conducted via CAD with OS positions from computerised maps [Anquet 1:25000 series] transferred to the drawings.

3. Investigations 2500BC :-Pleiades, Twmbarlwm and Gray Hill

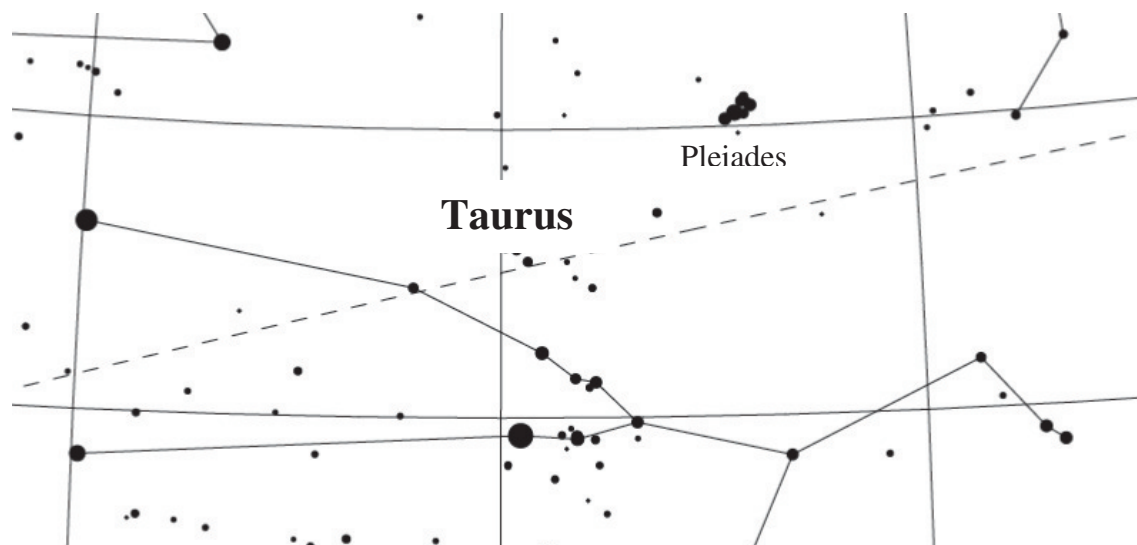


Fig. 5 . Taurus from Chris Marriot's Skymap

3.1 The rise [spring/summer]

In the year 2514 BC a group of observers standing on the top of Twmbarlwm, saw, for the first time, the Pleiades raise itself above Gray Hill. Previous days had seen this vision being only just visible and even then only fleetingly due to the proximity of the sun but this day for the first time the view was clear if still brief.

The time of this observation was the spring or vernal equinox. The time of rise of the Pleiades was 5.52 AM. A little while later at 6.15 AM the sun rose just to the south of Gray Hill, directly behind the hill with Castle Prin, [a later Earthwork] and

what would later be built as a tumulus or perhaps motte that now supports a bungalow 4.8 miles due east of Twmbarlwm.

The Pleiades rise would henceforth be seen everyday until around 20 days before the autumn equinox when a changeover between visible rise and visible set would take place over the 20 day period with a view of the set fully appearing at the equinox...as in the spring occurred with the Pleiades rise. This then continued until the next spring equinox when, between 20 days before until the equinox, the change between set to rise took place with the rise observed, as noted above, from Twmbarlwm.

Hence it is apparent that here we have an occasion that made the equinox important for more than the obvious reason of being midway between mid summer and midwinter.

Possibly coincidentally, Llantarnam Abbey was very much later built exactly on this Pleiades line between Twmbarlwm and Gray Hill, but also note the use of these alignments by the Romans; some intriguing questions are raised here.

3.2 The set [autumn/winter]

The set was observed, again initially at the equinox, this time the autumn equinox, from the raised area of what we know as Bentley Green to the east of Venta Silurum or Caerwent. Here, where the ground level is some 80 feet higher than at Caerwent, a mound was constructed, and as we have no other reason for its existence, its remains are not described as a Norman motte nor as an ancient burial mound, it is reasonable to assume that this may well have been a viewing platform for the set of the Pleiades...it certainly is uniquely in the correct location. The line of view of the set of the Pleiades seen from this location is over Pen Toppen Ash, the western edge of Wentwood above Cats Ash [all seen on the relevant maps including Google Earth] where there are considerable Earthworks which have been suggested as being Roman but are probably originally from a much earlier period. Given that this is a raised region it again is notable that the remains of a mound exist at Bentley Green where although the land is high enough to see over Pen Toppen Ash, a viewing platform for something as important as the Pleiades setting over Twmbarlwm would have been desirable.



Fig.6.The remains of the tumulus at Bentley Green [Google Earth]...only a small muddy patch remains, probably due to stone robbing over the millennia. The only certain association with this mound is that of the Pleiades circa 2500BC.

So where did the Pleiades set at that time...? They were viewed over Pen Toppen Ash but looking over and past here another hill top could be seen clearly from Bentley Green. The view was directly over the western end of Mynydd Maen, over the raised area of Twmbarlwm. This is why the site was chosen as a viewing location; from here the vision of the set of the Pleiades was over the viewing location for their rise...Twmbarlwm.

Hence we have an important astronomical and calendrical vision that inescapably locally involved Twmbarlwm in both the vision of the rise and set of the Pleiades. Their rise was viewed from the top of Twmbarlwm in the summer months and their set, as seen from Bentley Green, was apparent over the summer viewing spot during the cooler months, this is where they dipped below the horizon.

4.Further associations

What we have here in South Gwent appears to be unique. Having discovered these alignments and the related sun positions to be described shortly, the research of course then went much further afield in an endeavour to find other such references...none of a physical nature were found. Hence it seems that we have a very neat and unique set of physical astronomical alignments here in Gwent but once more we do have to stray a little from Twmbarlwm to reveal the relationships that emerge.

Here we include a citation from a classical author and shortly afterwards a further citation from the Bible...all is associated with the layout of South Gwent with its relationship to Twmbarlwm.

Firstly Hesiod, a Greek farmer turned poet who lived around 700BC reported in his *Works and Days* that:

'When the Pleiades, daughters of Atlas, are rising begin your harvest, and your ploughing when they are going to set. Forty nights and days they are hidden and appear again as the year moves round, when first you sharpen your sickle.'

[Evelyn-White H. G. (trans.) 1914 Hesiod: *Works And Days*. Sacred Texts CD.]

The forty days and nights is a little confusing as it applies to the 20 days of spring and autumn when in fact they are not hidden but the changeover of vision from rise to set or vice versa is taking place during the 20 days immediately prior to each equinox, spring or vernal and that of the autumn. However, note that Hesiod does not mention the equinox. In fact the same criterion applies over an extended period, the difference being that the Pleiades emerge away from the sunrise at equinox instead of with it as happens 20 days before at 2500 BC.

While in 2500 BC the Pleiades rose virtually above the sun, seen in India as being the seven steeds that hauled the chariot of the sun above the horizon. By the time of the Roman era in Gwent the Pleiades had shifted 25 degrees along the horizon hence while the time of Pleiades rise and sunrise at the equinox was similar, these two entities were now well separated. Given this speedy move along the horizon the Pleiades alignments can be quite accurately dated.

It appears that locally in South Gwent we have an exclusive equinox association with the Pleiades, well not quite exclusive because the Bible also tells of 40 days and nights of rain and its timing from the start of the year means it is directly associated with the equinox at the time of the flood. This rain element of that story is nothing but metaphor for the same Pleiades scenario and gives a date to the day. In reality, as revealed by an in depth study of this myth, the Biblical flood is merely when there is no pole star as is made quite clear in Indian texts that predate the Bible in their composition by millennia. Even Plato, a master of allegory, used the pole star cycle for his Atlantis tale which explains why the location will never be found on Earth...it is a place in the heavens! As is seen in Genesis 1: 6,7 and 8 there indeed was believed to be a celestial sea...it is this that the Egyptian sun god Ra sailed his boat upon...as indeed did the Indian equivalent, Varuna. This was a freshwater sea however; it was thought to be from where rain falls.

The 40 days and nights of rain in the Biblical tale are a reference to the year 2300BC some 200 years later than the scene described here in South Gwent. In those far off days many cultures, including those that recorded the flood tale and almost certainly the residents of Britain as is indicated by the stones of Stonehenge, employed a lunar calendar and the year commenced with the first new moon after the winter solstice. This new year commencement was therefore quite variable...and yet, even given the variability, the Biblical 40 days of rain commencement date complies *to the day* with the 20 day pre spring equinox date...on 2300BC which is correct for the pole star sequence.

Genesis 7:11 *In the six hundredth year of Noah's life, in the second month, the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened.*

This is the commencement of the 40 days and nights of rain in the Biblical flood tale.

Winter solstice [in our calendar]	7/8 January 2300BC
New moon and beginning of year	Jan 31 st 2300BC
Beginning of second month [new moon]	March 2 nd 2300BC
Plus 17 days	= March 19 th 2300BC
Vernal equinox = April 8 th	= 20 days after March 19th

[See *Deluge: From Genesis to Atlantis* by the current author with Steve Redman for further info on the Biblical tale and Atlantis and their factual evaluation]

Not only Hesiod and the Biblical authors have recorded these events however, the Babylonian *Mul.Apin* texts relate the same information and here Mul equates with Pleiades. Arab folklore also has the Pleiades disappearing for 40 days during the course of the year. So effectively this was a widespread astronomical tradition, as valid as the equinoxes and solstices. The automobile manufacturer Subaru takes its name from the Pleiades as this is the historical name for the asterism in Japan. Legends attached to the Pleiades apparently came to Japan from China [although it is highly probable that indigenous stories were in existence]. The meaning of the word is commonly thought to be 'united' while the Chinese character used for the Pleiades, [Kanji] has a correct association with 'bright'. Putting these names and meanings together we see bright derived from unification or being close together, an apt description of a small group of not so [individually] bright stars, a collection of bodies known in astronomy as an asterism.

The sky was of international importance.

So having seen that astronomy plays a much larger part than has previously been suspected, let us move on to the association of days in South Gwent before returning to the Gray Hill / Twmbarlwm association.

5.The count of days

At Llangfihangel Rogiet we have a standing stone that is one of the flat type and is orientated to midsummer sunset. This alignment takes one to the site of a Norman motte and bailey at Caer Lycin after traversing the top of High Grove Hill. Almost certainly, therefore, there was something at Caer Lycin to mark the location before the Normans graced these lands.

The sunset at 20 days before the autumn equinox or 20 days after the vernal equinox was directly over Twmbarlwm when viewed from Llangfihangel Rogiet Standing Stone. This still applies today, albeit in not quite the same position as it did 4500 years ago. However, the sunset over Twmbarlwm cannot be seen today from Llangfihangel Rogiet Standing Stone due to changes in topography caused by house building and motorway embankments.

To the south and the 20 days prior to the spring equinox sunset position another stone was erected at the location today known as Druidstone House. How this was so accurately placed cannot be stated, to be blunt, the author has no idea how it was achieved, alignment to the sun is relatively easy but here we have additional alignment to the top of Twmbarlwm which cannot be seen from the position from Druidstone. However, the fact that the stone is in its correct location is proof of the placement. It exactly mirrors the angle from the Llangfihangel Rogiet stone to Twmbarlwm north of the equinox line and what is more, is exactly due south of the

centre of the top of Twmbarlwm...well actually south of a location circa 130 feet east of the triangulation pillar on the hilltop.



Fig. 7. Photo: Harry Sivertsen:-Llanfihangel Rogiet Standing Stone late 20th century. [OS ref 344518, 187760]. [ST 44518,87760]

Llanfihangel Rogiet Standing Stone, known locally as the ‘Devil’s Quoit’ may have, according to Children and Nash in *Prehistoric Sites of Monmouthshire*, been visually aligned with settlements that existed to the south of Magor Pill. Further to this there is a firm statement that this stone would have formed a demarcation line between the domestic regions to the south and the ritualistic to the north. No comment is here made upon these unfounded assumptions.



Fig. 8. Llangfihangel Rogiet Standing Stone circa 1890...no motorway embankments

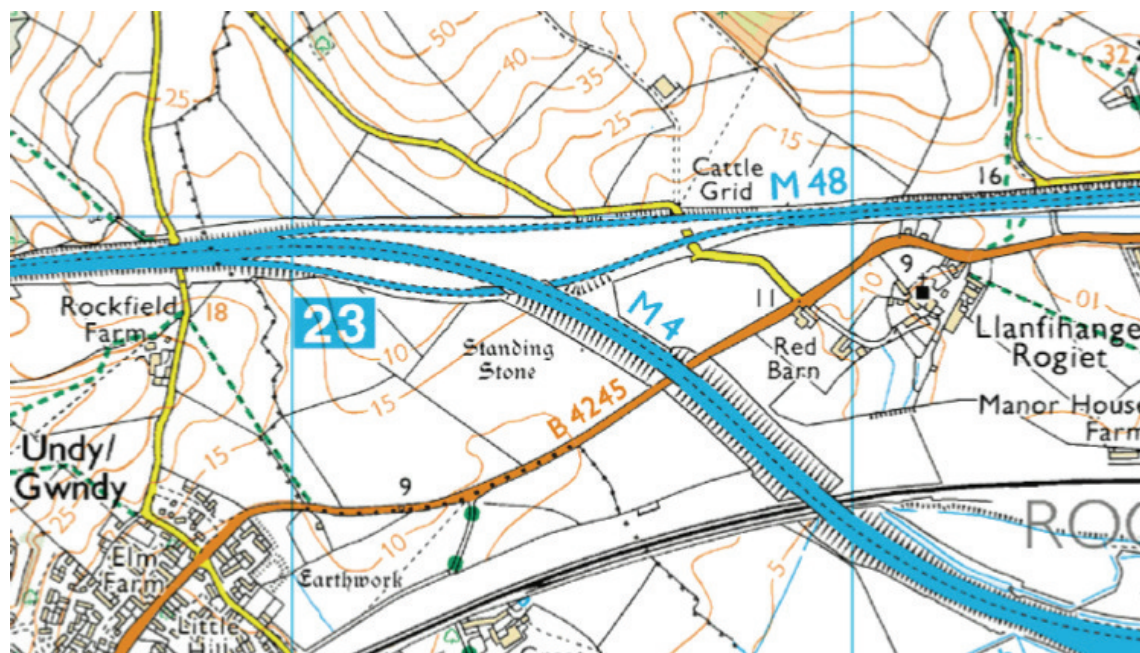


Fig.9. Llangfihangel Rogiet Standing Stone late 20th century map.



Fig.10. Photo: Harry Sivertsen:- Llangfihangel Rogiet Standing Stone on a hazy day. The inclination seen here indicates an angle approximating midsummer sunset, midwinter sunrise.



Fig.11. Photo: Harry Sivertsen :- The sun angle of Llangfihangel Rogiet Standing Stone seen on the compass



Fig.12. Photo: Harry Sivertsen:- Sunset over Twmbarlwm



Fig. 13. Photo: Harry Sivertsen:- [Druidstone House] Standing Stone [OS ref 342111, 183493]. [ST 42111,83493] This boulder does not have any directional implications.

But what about the equinox line? In fact this is from the Llangfihangel Rogiet stone, over the top of Wilcrick Hill to the top of Mynydd Meio at the west of Caerphilly overlooking Hendredenny. In fact much later two churches were also located on this precise line, Llanwern and Lower Machen.

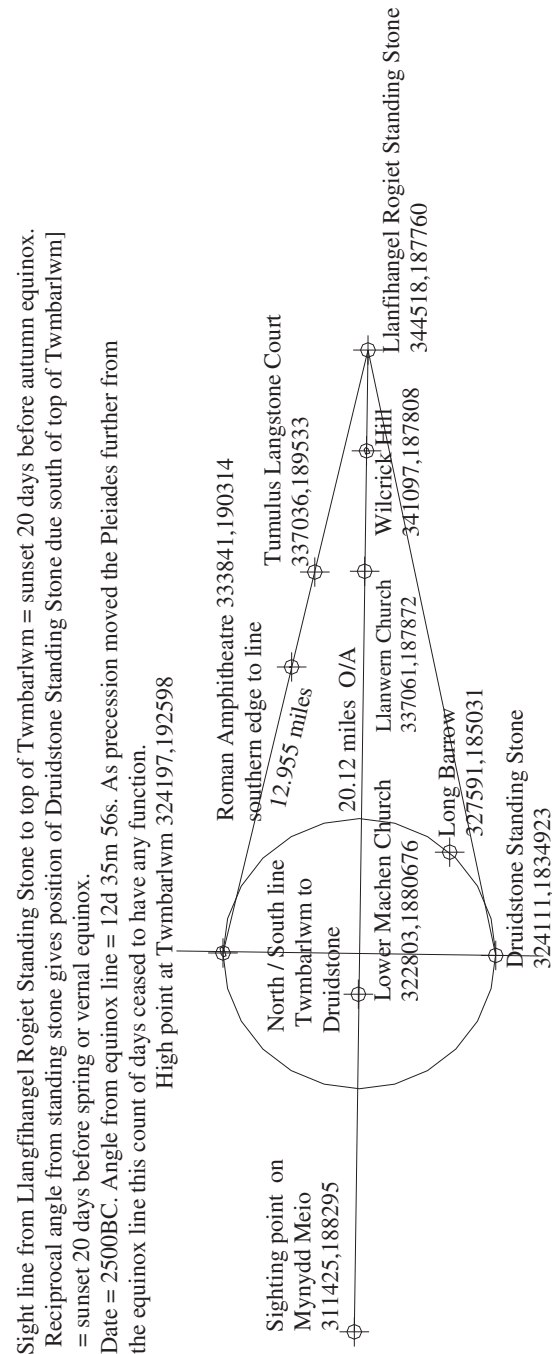


Fig. 14. The stone and day count arrangements in South Gwent. OS Grid values to one metre.

It is apparent that here we have the two counts of days, 20 days before the spring equinox and 20 days before the autumn equinox set out on the ground here in South Gwent. This complies precisely to the 2500 BC dating for the Pleiades seen earlier. Interestingly the count of 30 days applies to Twmbarlwm and Druidstone for sunrise as viewed from Mynydd Meio. This is unlikely to have been used although we have no evidence for or against the concept.

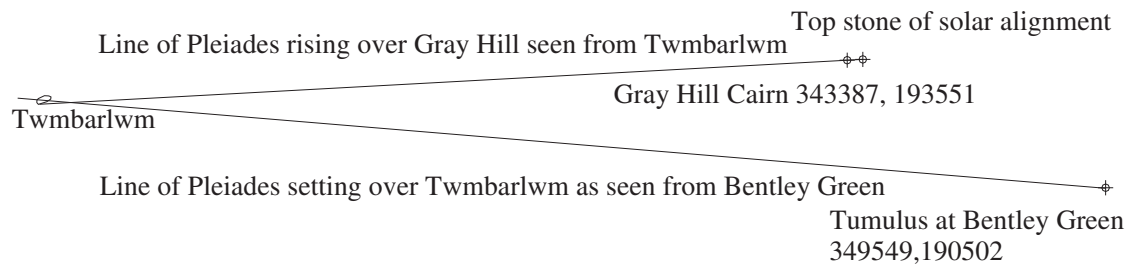


Fig. 15. The Twmbarlwm /Gray Hill arrangements

The diagram here shows the relationship between Twmbarlwm, Gray Hill and Bentley Green just to the east of Caerwent. What this does not indicate is the time factor involved. The Pleiades moves with precession at a speedy rate across the horizon and Gray Hill viewed from Twmbarlwm is rather small...it is an end view. This being the case the time taken for the rise position of the Pleiades to traverse the end of Gray Hill was calculated via the astronomy computer program in use...a maximum of 28 years. Hence we can date this set up to within less than three decades to within 14 years either side of 2500BC...better than carbon dating! Effectively we can state that at 2500 BC the alignment, across fixed locations, was at its most accurate. The Pleiades are quite large, not as individual stars but as a group and cover a similar width as does the sun or moon hence here we are not concerned about refraction causing errors of judgement as possibly would be the case if singular stars were the sighting objects.

A number of astronomers have claimed that light refraction will give a false impression of a stars position when observed at the horizon. Seemingly while a computer program may indicate a stars real position, visual checking will not necessarily agree due to refraction caused by moisture in the atmosphere, specifically when observing near or at the horizon. Hence alignments of stones to stars may be seen as inconclusive. However, there is no problem of that nature here as modern views of the relevant bodies, sun and Pleiades agree with the computer displays and in any case, the sun, moon and Pleiades are all approximately half a degree in visual diameter which is greater than the supposed possible error. Hence there is no problem of that nature in this commentary. Computer readings have been taken on Alcyone which is approximately the visual centre of the Pleiades.

What we have described is what was observed locally over 4500 years ago. We have observed Pleiades rising above Gray Hill from the peak of Twmbarlwm and we have also seen Pleiades setting into the top of Twmbarlwm from Bentley Green. In fact this alignment angle was almost certainly replicated and other stones or mounds set up because a number of churches and some other stones no longer extant replicate both the line of rise and set of Pleiades at 2500 BC. Many churches were built on ancient sites...as instructed by Papal Bull from Rome...so here is a very strong possibility that cannot be discounted even though most associated churches are in fact Norman and not early Welsh.

There is more to this however and that involves further observations at Gray Hill, which itself leads to Trellech via methodology not commonly utilised in the ancient world. We also need to take further look at Caerwent and its setting out by the Romans. The following article will reveal what has been discovered at these locations and the relationships to what is seen here.

All information is extracted from the books by Harry Sivertsen with Steve Redman: - Measurements of the Gods

<http://www.completelynovel.com/books/77136>

Deluge From Genesis to Atlantis

<http://www.completelynovel.com/books/77135>

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